

Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1-11 (canceled)

12-54 (Canceled)

55. (New) A composition for treatment of symptoms of psoriasis comprising a particulate antigen isolated from protozoa of genus *Leishmania*, wherein the particulate antigen comprises polypeptides having apparent molecular weights after total reduction and alkylation of 73 kDa, 80 kDa, and 82 kDa.

56. (New) The composition according to claim 55, wherein the protozoa of genus *Leishmania* consist essentially of a mixture of four species of *Leishmania*.

57. (New) The composition according to claim 56, wherein the leishmania protozoa comprises at least one species selected from the group consisting of *L. (V) basiliensis* and *L. (L) chagasi*.

58. (New) The composition according to claim 56, wherein the four species of *Leishmania* are *L. (L) amazonensis*, *L. (L) venezuelensis*, *L. (V) brasiliensis*, and *L. (L) chagasi*.

59. (New) The composition according to claim 1, wherein the polypeptides comprise the amino acid sequences set forth in SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, AND SEQ ID NO: 6 and immunogenic variants of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, AND SEQ ID NO: 6.

60. (New) The composition according to claim 1, wherein the polypeptides comprise the amino acid sequences set forth in SEQ ID NO: 1, SEQ ID NO: 3, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 12, SEQ ID NO: 13, AND SEQ ID NO: 14 and immunogenic variants of SEQ ID NO: 1, SEQ ID NO: 3, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 12, SEQ ID NO: 13, AND SEQ ID NO: 14.

61. (New) The composition according to claim 55, wherein the polypeptides comprise the amino acid sequences set forth as SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14 and immunogenic variants of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14

62. (New) The composition according to claim 55, wherein the 73 kDa polypeptide comprises the amino acid sequences set forth as SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, and SEQ ID NO: 14 and immunogenic variants of SEQ ID NO: 11 SEQ ID NO: 12, SEQ ID NO: 13, and SEQ ID NO: 14.

63. (New) The composition according to claim 55, wherein the 73 kDa polypeptide comprises the amino acid sequences set forth as SEQ ID NO: 1, SEQ ID NO: 5, and SEQ ID NO: 6 and immunogenic variants of SEQ ID NO: 1, SEQ ID NO: 5, and SEQ ID NO: 6.

64. (New) The composition according to claim 63, wherein the 73 kDa polypeptide further comprises the amino acid sequences set forth as SEQ ID NO: 1, SEQ ID NO: 5, and SEQ ID NO: 6 and immunogenic variants of SEQ ID NO: 1, SEQ ID NO: 5, and SEQ ID NO: 6.

65. (New) The composition according to claim 55, wherein the 80 kDa polypeptide comprises the amino acid sequences set forth as SEQ ID NO: 1 SEQ ID NO: 3, SEQ ID NO: 10 and immunogenic variants of SEQ ID NO: 1, SEQ ID NO: 3, SEQ ID NO: 10.

66. (New) The composition according to claim 55, wherein the 80 kDa polypeptide comprises the amino acid sequences set forth as SEQ ID NO: 4 and immunogenic variants of SEQ ID NO: 4.

67. (New) The composition according to claim 65, wherein the 80 kDa polypeptide further comprises the amino acid sequences set forth as SEQ ID NO: 4 and immunogenic variants of SEQ ID NO: 4.

68. (New) The composition according to claim 55, wherein the 82 kDa polypeptide comprises the amino acid sequences set forth as SEQ ID NO: 7, SEQ ID NO: 8, and SEQ ID NO: 9 and immunogenic variants of SEQ ID NO: 7, SEQ ID NO: 8, and SEQ ID NO: 9.

69. (New) The composition according to claim 55, wherein the 82 kDa polypeptide comprises the amino acid sequences set forth as SEQ ID NO: 1 and SEQ ID NO: 2 and immunogenic variants of SEQ ID NO: 1 and SEQ ID NO: 2.

70. (New) The composition according to claim 68, wherein the 82 kDa polypeptide further comprises the amino acid sequences set forth as SEQ ID NO: 1 and SEQ ID NO: 2 and immunogenic variants of SEQ ID NO: 1 and SEQ ID NO: 2.

71. (New) The composition according to claim 55, wherein the composition is administered intramuscularly to a subject in need thereof.

72. (New) A method of eliciting an immune response in an animal, including a human, for treatment of the symptoms of psoriasis, the method comprising the steps

(a) formulating a composition comprising a particulate antigen isolated from protozoa of genus *Leishmania*, wherein the particulate antigen comprises polypeptides having apparent molecular weights after total reduction and alkylation of 73 kDa, 80 kDa, and 82 kDa; and

(b) administering the formulated composition to the animal.

73. (New) The method according to claim 72, wherein the protozoa of genus *Leishmania* consist essentially of a mixture of four species of *Leishmania*.

74. (New) The method according to claim 73, wherein the *leishmania* protozoa comprises at least one species selected from the group consisting of *L. (V) brasiliensis* and *L. (L) chagasi*.

75. (New) The method according to claim 73, wherein the four species of *Leishmania* are *L. (L) amazonensis*, *L. (L) venezuelensis*, *L. (V) brasiliensis*, and *L. (L) chagasi*.

76. (New) The method according to claim 72, wherein the polypeptides comprise the amino acid sequences set forth in SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, AND SEQ ID NO: 6 and immunogenic variants of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, AND SEQ ID NO: 6.

77. (New) The composition according to claim 72, wherein the polypeptides comprise the amino acid sequences set forth in SEQ ID NO: 1, SEQ ID NO: 3, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 12, SEQ ID NO: 13, AND SEQ ID NO:

14 and immunogenic variants of SEQ ID NO: 1, SEQ ID NO: 3, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 12, SEQ ID NO: 13, AND SEQ ID NO: 14.

78. (New) The method according to claim 72, wherein the composition comprises polypeptides having the amino acid sequences set forth as SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14 and immunogenic variants of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14.

79. (New) The method according to claim 72, wherein the 73 kDa polypeptide comprises the amino acid sequences set forth as SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, and SEQ ID NO: 14 and immunogenic variants of SEQ ID NO: 11 SEQ ID NO: 12, SEQ ID NO: 13, and SEQ ID NO: 14.

80. (New) The method according to claim 72, wherein the 73 kDa polypeptide comprises the amino acid sequences set forth as SEQ ID NO: 1, SEQ ID NO: 5, and SEQ ID NO: 6 and immunogenic variants of SEQ ID NO: 1, SEQ ID NO: 5, and SEQ ID NO: 6.

81. (New) The method according to claim 79, wherein the 73 kDa polypeptide further comprises the amino acid sequences set forth as SEQ ID NO: 1, SEQ ID NO: 5, and SEQ ID NO: 6 and immunogenic variants of SEQ ID NO: 1, SEQ ID NO: 5, and SEQ ID NO: 6.

82. (New) The method according to claim 72, wherein the 80 kDa polypeptide comprises the amino acid sequences set forth as SEQ ID NO: 1 SEQ ID NO: 3, SEQ ID NO: 10 and immunogenic variants of SEQ ID NO: 1, SEQ ID NO: 3, SEQ ID NO: 10.

83. (New) The method according to claim 72, wherein the 80 kDa polypeptide comprises the amino acid sequences set forth as SEQ ID NO: 4 and immunogenic variants of SEQ ID NO: 4.

84. (New) The method according to claim 82, wherein the 80 kDa polypeptide further comprises the amino acid sequences set forth as SEQ ID NO: 4 and immunogenic variants of SEQ ID NO: 4.

85. (New) The method according to claim 72, wherein the 82 kDa polypeptide comprises the amino acid sequences set forth as SEQ ID NO: 7, SEQ ID NO: 8, and SEQ ID NO: 9 and immunogenic variants of SEQ ID NO: 7, SEQ ID NO: 8, and SEQ ID NO: 9.

86. (New) The method according to claim 72, wherein the 82 kDa polypeptide comprises the amino acid sequences set forth as SEQ ID NO: 1 and SEQ ID NO: 2 and immunogenic variants of SEQ ID NO: 1 and SEQ ID NO: 2.

87. (New) The method according to claim 85, wherein the 82 kDa polypeptide further comprises the amino acid sequences set forth as SEQ ID NO: 1 and SEQ ID NO: 2 and immunogenic variants of SEQ ID NO: 1 and SEQ ID NO: 2.

88. (New) The method according to claim 72, further comprising the step of evaluating whether the immunotherapy has affected the animal's inflammatory response.

89. (New) The method according to claim 72, wherein the composition is administered intramuscularly.